Trichomoniasis treatment in women

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Short treatment regimens with drugs of the nitroimidazole class are as effective as the longer treatment regimens. Among varying nitroimidazole drugs available for the therapy of trichomoniasis, tinidazole was more effective than metronidazole. Identifying women infected with trichomoniasis is often more difficult than treating them.

RHL Commentary by Schmid G

1. EVIDENCE SUMMARY

This review compares the efficacy of various strategies for the treatment of trichomoniasis in women, in particular, short versus long oral treatment regimens. Short treatment regimens with drugs of the nitroimidazole class (mostly given as a single dose) are as effective in achieving success as longer treatment regimens (of at least five days’ duration) (RR 1.12, 95% CI, 0.58-2.16); therapy with any regimen is generally >90%. Failure to treat partners may lead to apparent lack of therapeutic success and, because trichomoniasis is a sexually transmitted infection (STI), treatment of male partners must be part of the treatment regimen of infected women. The only trial that compared treatment outcome among women whose partners were not treated vs. those who were treated showed that women whose partners were not treated had a significantly higher failure rate (24% vs. 5%). Among varying nitroimidazole drugs available for the therapy of trichomoniasis, tinidazole was more effective than metronidazole, although the quality of the studies comparing the two drugs was not optimal.

All adequately controlled trials which could be identified have been included and appropriately analysed.

2. RELEVANCE TO UNDER-RESOURCED SETTINGS

2.1. Magnitude of the problem

In 1995, there were an estimated 170 million individuals worldwide who became infected with Trichomonas vaginalis (1). In developed countries, cases are particularly frequent among individuals with risky sexual behaviour, and in both the developed and developing countries among women with limited access to medical care. Prevalence rates of 15 % or higher are common among women in many developing countries. Such rates make trichomoniasis one of the most common sexually transmitted diseases (STD).

2.2. Applicability of the results
The effectiveness of treatment with nitroimidazole in achieving cure in individuals is applicable to all settings, as there are no known differences in therapeutic response among women in differing social or geographic settings nor by underlying medical condition, e.g., HIV infection. Although any of the nitroimidazole class of drugs can be used for the treatment of trichomoniasis, metronidazole is most commonly used worldwide and is widely available. Nitroimidazoles are inexpensive (the mean cost of generic tinidazole is $0.04/500 mg tablet, or, $0.16 for a typical 2 gm dose) (2). This feature, combined with the fact that short treatment regimens (typically single dose) are highly effective, make treatment of individual cases or even large-scale interventions quite feasible in under-resourced areas.

2.3. Implementation of the intervention

The major difficulty with implementing the intervention is identifying infected individuals. Women may be asymptomatic or symptomatic with vaginal pruritus/irritation or a discharge. If asymptomatic, there is no reason for them to seek health care and the infection remains undetected. Diagnosis is usually made by microscopic examination of vaginal secretions, although in under-resourced areas this is not always done. Even when it is done, 30-50 % of cases may be missed. Men present even more of a diagnostic challenge because most infected men are asymptomatic (a minority will have symptoms of mild urethritis) (3).

One consideration in the use of nitroimidazoles is the high frequency of side effects with their use, and patients must be warned of these effects. This review shows that one-quarter to one-half of individuals will have side effects, most commonly gastrointestinal (nausea or vomiting), and that tinidazole causes fewer side effects than metronidazole.

3. RESEARCH

Cure rates in women with either short- or long-term therapy are about 90-95 % but why all women are not cured is unclear. Certainly, failure to treat the male partner(s) and resumption of sexual activity soon after treatment is one reason. However, it is also known through case reports that resistance to nitroimidazoles probably occurs world-wide in T. vaginalis, although its frequency is not known, particularly in the developing world; one study in the United States found a prevalence of <1% (4). There are few recent trials, in particular with partner treatment, so it is not known whether the cure rates in the reviewed studies reflect those currently. Also, the cure rates of short versus long courses of metronidazole are based on only two well-controlled studies and it is possible that differences in efficacy, or effectiveness, of the two approaches to therapy may be obscured by the limited data. Although most cases of trichomoniasis that fail to respond to treatment with standard courses are cured with higher-dose courses, alternative treatments need to be developed. The finding that tinidazole is more effective than metronidazole, although study quality was not ideal, indicates that one or more well-conducted head-to-head trials of these two drugs would be useful, along with collection of side effect data, to confirm this finding.

There are conflicting data on whether trichomoniasis during pregnancy is associated with preterm birth. Treatment of trichomoniasis during pregnancy in one large study was associated with an increased rate of prematurity (5).

References

- Schwebke JR, Hook III EW. High rates of Trichomonas vaginalis among men attending a sexually transmitted diseases clinic: Implications for screening and urethritis management. *Journal of infectious diseases*


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